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EXAMINER ARNOLD, ERNST V				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/591,129

Applicant(s)

BAUR ET AL.

Examiner

ERNST V. ARNOLD

Art Unit

1613

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-25 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,11-14,16 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-10,15,17 and 19-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

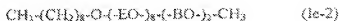
Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-508)
Paper No(s)/Mail Date 8/26/10
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-9 and 11-25 are pending. Claim 10 is cancelled. Claims 1, 2, 5-10, 15, 17 and 19-25 are and under examination. Claims 3, 4, 11-14, 16 and 18 have been withdrawn. The restriction requirement is made FINAL. The claims are being examined as they read on the elected subject matter. Applicant elected this species for examination in the reply filed 4/5/10:

for search purposes. Applicants provisionally elect the following compound, known as Formula 1e-2, for search purposes:



in which

EO is $\text{CH}_2-\text{CH}_2-\text{O}$,

BO is $-\text{CH}_2-\text{CH}_2-\underset{\text{CH}_3}{\text{CH}}-\text{O}-$, and

the numbers 8 and 2 represent average values.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 8/26/10 was filed after the mailing date of the Office Action on 512/10. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Withdrawn rejections:

Applicant's amendments and arguments filed 8/26/10 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below is herein withdrawn.

The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 5-9, 15, 17 and 19-25 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Vermeer et al. (US 20040157745) and Wolf et al. (WO 03/099005) and Turberg et al. (US 20050214336 filed internationally as WO 2003/086075; published 10/23/03) and Patel et al. (US 5925182).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Applicant claims an oil based suspension concentrate, a method of making the suspension concentrate, a method of applying the suspension concentrate and a method of controlling insects with the suspension concentrate.

Determination of the scope and content of the prior art

(MPEP 2141.01)

Vermeer et al. teach alcohol alkoxylates for use in oil based suspension concentrates with at least one active agrochemical, one vegetable oil, one or more non-ionic surfactants and optionally additives (Abstract and claims 1-8). Vermeer et al. teach alcohol alkoxylates as penetration enhancers to improve penetration of agrochemical active compounds into plants in [0068-0073]:

§ [0068] Suitable penetration promoters in the present composition are all those substances which are customarily employed in order to improve the penetration of agrochemical active compounds into plants. Alkanol alkoxylates of the formula



[0069] in which

[0070] R represents straight-chain or branched alkyl having 4 to 20 carbon atoms,

[0071] AO represents an ethylene oxide radical, a propylene oxide radical, a butylene oxide radical, or mixtures of ethylene oxide and propylene oxide radicals or butylene oxide radicals and

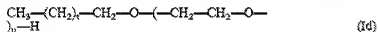
[0072] m represents numbers from 2 to 30,

[0073] are preferred.

Vermeer et al. teach in [0093-0098]:

[0094] represents numbers from 1 to 10.

§ [0093] A further particularly preferred group of penetration promoters are alkanol alkoxylates of the formula



[0094] in which

[0095] t represents numbers from 8 to 13 and

[0096] u represents numbers from 6 to 17.

[0097] In the formulae indicated beforehand

[0098] R preferably represents butyl, i-butyl, n-pentyl, i-pentyl, neopentyl, n-hexyl, i-hexyl, n-octyl, i-octyl, 2-ethyl-hexyl, nonyl, i-nonyl, decyl, n-dodecyl, i-dodecyl, lauryl, myristyl, i-tridecyl, trimethylnonyl, palnityl, stearyl or eicosyl.

Thus, alcohol alkoxylates with isobutylene oxide and ethylene oxide are taught by Vermeer et al.

The Examiner's notes that the difference between the alcohol alkoxylates of Vermeer et al. and

those instantly claimed is that Vermeer et al. teach compounds terminated by -H on one end, an open penetrant, whereas the instant alcohol alkoxylates are terminated with alky groups, a closed penetrant; R-O-(AO)_mH for Vermeer et al. and R-O-(AO)_m-R' for the instant claims.

Vermeer et al. teach that *insecticides, acaricides*, nematicides etc... can be used in the invention [0020 with examples from 0021-0067]. Use of the suspension concentrate, which the Examiner interprets to mean a method of use, by application to plants or their habitat is taught (claim 10 and [0134-0135]). A process of preparing a suspension concentrate is taught by mixing the ingredients (claim 9 and [0130-0132]). The amount of individual components can be varied within a wide range [0124-0129]:

[0125] of agrochemical active compounds are in general between 5 and 30% by weight, preferably between 10 and 25% by weight,

[0126] of penetration promoter are in general between 5 and 55% by weight, preferably between 15 and 40% by weight,

[0127] of vegetable oil are in general between 15 and 55% by weight, preferably between 20 and 50% by weight,

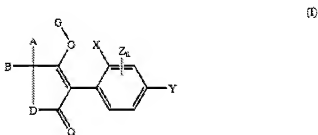
[0128] of surfactants or dispersing aids are in general between 2.5 and 30% by weight, preferably between 5.0 and 25% by weight and

[0129] of additives are in general between 0 and 25% by weight, preferably between 0 and 20% by weight.

Anti-oxidants and inert fillers are taught [0121-0123]. Vegetable oils such as sunflower and olive oils, non-ionic surfactants and additives are taught [0112-0120].

Turberg et al. teach compounds and methods for controlling parasites in the environment of animals in claims 1 and 2 (also in [0005-0030]) with compounds of the formula (in part from claim 1):

1. The use of phenylketoenol derivatives of the general formula (I)



in which

X represents alkyl, halogen, alkoxy or haloalkyl,

Y represents hydrogen, alkyl, halogen, alkoxy, haloalkyl,

Z represents alkyl, halogen alkoxy,

- A and B together with the carbon atom to which they are bonded form a saturated or unsaturated cycle which is optionally interrupted by hetero atoms and optionally substituted,

D represents oxygen, sulfur or —NH—,

In [0035-0040]:

[0035] Compounds of the formula (I) which are preferably used are those

[0036] in which

[0037] X represents C₁-C₆-alkyl, halogen, C₁-C₆-alkoxy or C₁-C₃-haloalkyl,

[0038] Y represents hydrogen, C₁-C₆-alkyl, halogen, C₁-C₆-alkoxy, C₁-C₃-haloalkyl,

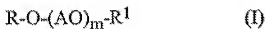
[0039] Z represents C₁-C₆-alkyl, halogen, C₁-C₆-alkoxy,

[0040] n represents a number from 0 to 3,

G represents H or -CO-R¹ and R¹ is C1-C20 alkyl [0046 and 0050].

When A and B together form a ring, the ring can be saturated or unsaturated and substituted with alky and alkoxy groups for example [0043]. Alkoxy groups are taught broadly in [0013] and are further limited to C1-C6 alkoxy which would include methoxy in [0043]. Therefore, the instantly elected active is fairly taught by the reference. Turberg et al. teach vegetable oils (page 8, column 2, [0180]; page 9, column 1, [0195]), surfactants including nonionic ones (page 9, column 1, [0200]), and optional additives including antioxidants and colorants (page 8, column 2, [0187]-[0190]) are included. Turberg et al. teach an active agent presence of preferably 1.0-40% by weight (see page 8, column 1, [0170]). Turberg et al. teach adjuvant components serving as extenders and/or surface-active reagents (see page 8, column 1, [0173]-[0175]). Turberg et al. teach that the compounds are effective against tick species, fleas, lice and mites [0004]. Thus, the compounds can then be considered acaricides because ticks are in the subclass of acarina and fleas are in the class of insects so the compounds can also be considered insecticides.

Wolf et al., (although in German the chemical language remains understood in English), teach agrochemical active agents with alkanol alkoxyates of the formula:



which are closed penetrants in the vernacular of the instant invention. (page 7, line 25). Wolf et al. teach that R is alkyl with 4-20 carbon atoms; m is a number from 1 to 30; R¹ is alkyl with 1-4 carbons and AO can be ethylene oxide or butylene oxide or mixtures (page 7 line 29-page 8, line 7). Thus Wolf et al. establish alkanol alkoxylates with terminal R groups.

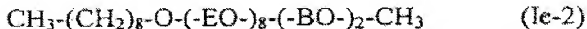
Patel et al. teach the equivalence of using mineral oil or vegetable oil as a carrier in liquid suspension compositions (Abstract and claims 1 and 2).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

1. The difference between the instant application and Vermeer et al. is that Vermeer et al. do not expressly teach the instantly claimed active compound or a method of making, applying or controlling insects with the instant compound. This deficiency in Vermeer et al. is cured by the teachings of Turberg et al.

2. The difference between the instant application and Vermeer et al. is that Vermeer et al. do not expressly teach the instantly claimed closed penetrant or the specific species of closed penetrant in the composition or for use in the methods:



This deficiency in Vermeer et al. is cured by the teachings of Wolf et al.

3. The difference between the instant application and Vermeer et al. is that Vermeer et al. do not expressly teach adding mineral oil to the composition or to the methods. This deficiency in Vermeer et al. is cured by the teachings of Patel et al.

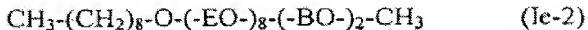
Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

1. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the compound of Turberg et al. in the composition and methods of Vermeer et al. and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Vermeer et al. teach adding insecticides and Turberg et al. teach the instant compound as an insecticide. One of ordinary skill in the art would expect the compound of Turberg et al. to function as an insecticide in the composition and methods of Vermeer et al. Application of the composition comprising the insecticide of Turberg et al. intrinsically controls insects in their habitat.

2. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the alcohol alkoxylate of Wolf et al. in the composition and methods of Vermeer et al. with the formula:



and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Vermeer et al. establish alcohol alkoxylates as penetration enhancers and teach using suitable penetration enhancers to improve penetration of the agrochemical active compounds [0068] and Wolf et al. teach other alcohol alkoxylates which one of ordinary skill in the art would understand to also function as penetration enhancers. In fact, similar properties may normally be presumed when compounds are very close in structure. *Dillon*, 919 F.2d at 693, 696, 16 USPQ2d at 1901, 1904. The comprising language of Vermeer et al. allows for the addition of other penetration enhancers. "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). Furthermore, it is deemed merely routine optimization of the number of ethylene oxide and isobutylene oxide groups in the general formula provided by Wolf et al. to derive the instant compounds in the absence of evidence to the contrary.

3. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use mineral oil, as suggested by Patel et al., in the composition and methods of Vermeer et al. and produce the instant invention. One of ordinary skill in the art would expect to make a liquid suspension.

One of ordinary skill in the art would have been motivated to do this because Patel et al. render mineral oil and vegetable oil equivalent for use in liquid suspensions.

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Response to Arguments:

Applicant asserts that neither Vermeer, Turberg, Wolf nor Patel, individually or taken together describes a predictable variation of the claimed invention. Applicant is in agreement with the Examiner that Vermeer teaches using 'open' penetrants as opposed to the instantly claimed 'closed' penetrants. However, Applicant's conclusion that one of ordinary skill in the art would be lead to use only the open penetrants according to the teaching of Vermeer is reading the art of Vermeer in a vacuum and ignoring other teachings cited by the Examiner. The addition of other known penetrants is obvious to the ordinary artisan. As previously asserted by the Examiner, "It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose..... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). Consequently, Applicant's argument that the ordinary artisan would not have used the micro-encapsulated penetrants of Wolf is not persuasive because the ordinary artisan understands that 'penetrant' is property of the compound and not the microcapsule.

Applicant asserts that closed penetrants display surprisingly better biological activity than the corresponding open penetrants and directed the Examiner to Examples I-III of the instant

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specification. In example 1, the effect of closed and open additives on the mobility of a weak organic acid was shown and, for the elected species, this is the data:

Ie-2, open	45.1	14.3
Ie-2, (= closed)	89.1	19.1 (additive from Example 1)

Even when considering the standard error, there is still a significant improvement on mobility using the closed penetrant over the open penetrant. The additive from Example 1 is:

Example 1

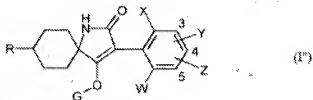
To prepare a suspension concentrate

100.0 g of the compound of Example (I^a-4)
 100.0 g of polyoxyethylene-sorbitol oleate
 90.0 g of a mixture of polyalkoxylated alcohols (Atlox 4894)
 10.0 g of lignin sulphonate (Borresperse NA)
 0.5 g of polydimethylsiloxane
 2.0 g of 2,6-di-tert-butyl-n-methylphenol
 2.0 g of anhydrous citric acid

250.0 g of the compound of the formula (Ie-2) and

440.0 g of sunflower oil.

For the record, the compound I^a-4 is:



Example No.	W	X	Y	Z	R	G	m.p.°C
I'-1	H	Br	5-CH ₃	H	OCH ₃	CO-i-C ₃ H ₇	122
I'-2	H	Br	5-CH ₃	H	OCH ₃	CO ₂ -C ₂ H ₅	140 - 142
I'-3	H	CH ₃	5-CH ₃	H	OCH ₃	H	> 220
I'-4	H	CH ₃	5-CH ₃	H	OCH ₃	CO ₂ -C ₂ H ₅	128

Similarly, enhanced penetration of apple leaf cuticle was shown in Example II, Tables Ia and Ib for I'-4. Example III, shows penetration over time for I'-4 is enhanced when in combination with closed penetrant Ie-2. In Table 2, inventive samples A and B are clearly superior to C and D as shown below:

Table II

	Active substance penetration in % after		
	1.5h	10h	22h
A	11	31	47
B	5	22	33
C	2	7	16
D			<5

However, objective evidence of nonobviousness, if any, must be commensurate in scope with that of the claimed subject matter. *In re Kulling*, 14 USPQ2d 1056 (Fed. Cir. 1990); *In re Lindner*, 173 USPQ 356 (CCPA 1972). In other words, while Applicant has shown data for 2 closed penetrants and a single solid active, the claims embrace all solid agrochemical actives and

all closed penetrants. There is no reasonable correlation between the data and the entire scope of the claim when viewed by the artisan because the species are structurally different from each other and would be expected to have different functions. For example, the formula for the closed penetrant is:



The 'AO' can be ethylene oxide (EO) or propylene oxide (PO) or butylene oxide (BO) or mixtures of (EO) and (PO) or mixtures of (EO) and (BO). Only a mixture of (EO) and (BO) has been shown. Similarly, only a single active has been shown to work in this invention.

Applicant's invention is predicated on a surprising/unexpected result, which typically involves synergism, an unpredictable phenomenon, highly dependent upon specific proportions and/or amounts of particular ingredients. Any mixture of the components embraced by the claims which does not exhibit an unexpected result (e.g., synergism) is therefore *ipso facto* unpatentable.

Accordingly, the instant claims, in the range of proportions and/or amounts of particular ingredients where no unexpected results are observed would have been obvious to one of ordinary skill having the above cited references before him.

Applicant argues that Tuberg does not cure the deficiencies of Vermeer because Tuberg does not teach the use of phenyl ketoenol derivatives for parasite control in plants and for control of insects on plants. However, the claims do not have this limitation. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057. Tuberg teaches the instantly claimed

compounds as acaricides and insecticides as discussed above and not for making oil based suspension concentrates.

Patel is relied upon as discussed above and not for teaching oil based suspension concentrates comprising at least one alkanol alkoxylate.

Respectfully, Applicant's arguments are not persuasive at this time and the claims remain rejected.

Conclusion

No claims are allowed. Applicant is invited to contact the Examiner to discuss potentially allowable subject matter.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERNST V. ARNOLD whose telephone number is (571)272-8509. The examiner can normally be reached on M-F 7:15-4:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Kwon can be reached on 571-272-0581. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ernst V Arnold/
Primary Examiner, Art Unit 1613